#12 Response 12/23/02

PATENT
Customer No. 22,852
Attorney Docket No. 05225.0633

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Norio TAKAHASHI et al.	)	Group Art Unit: 2834
	)	
Serial No.: 09/863,402	)	Examiner: Heba Elkassabgi
	)	
Filed: May 24, 2001	)	
	)	
For: PERMANENT MAGNET RELUCTANCE MOTOR WITH EMBEDDED PERMANENT MAGNET HOLES (as amended)	)	

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

RESPONSE

In response to the Office Action dated August 13, 2002, please reexamine and reconsider the application in view of the appended remarks.

REMARKS

Reconsideration of the present application is respectfully requested in view of the following remarks. Prior to entry of this response, Claims 1-11 were pending in the application, of which Claim 1 is independent. In the Office Action dated August 13, 2002, Claims 1-3, 5-6, and 8-11 were rejected under 35 U.S.C. §102(b) and Claims 4 and 7 were rejected under 35 U.S.C. §103(a). Following this amendment, Claims 1-11 remain in this application.

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I. Rejection of the Claims Under 35 U.S.C. § 102(b)

In the Office Action dated August 13, 2002, the Examiner rejected Claim 1 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,008,559 ("*Asano*"). Applicants respectfully traverse this rejection.

Claim 1 patentably distinguishes the present invention from the cited art in that it recites, for example, a permanent magnet reluctance motor comprising a stator having an armature coil, a rotor configured for providing magnetic irregularities in a circumferential direction wherein the rotor includes permanent magnets in a plurality of permanent magnet embedding holes within a rotor core wherein a magnetic flux of an armature passing through between adjacent magnetic poles is canceled, and wherein the rotor further includes non-magnetic regions on a circumferential side of said permanent magnets between said magnetic poles, and a plurality of projections configured to fix positional location of said permanent magnets, the plurality of projections configured to project into said permanent magnet embedding holes within said core of said rotor.

Asano discloses a plate type permanent magnet 23 inserted in four slits 22 in a rotor 2. The rotor 2 has a hole 27 for preventing magnetic flux from being short-circuited, the hole 27 is adjacent to the outer circumference of the rotor core 21 and adjoins the slit 22 as well as each end of the permanent magnet 23. According to *Asano*, the above structure prevents the magnetic flux generated by both ends of the permanent magnet 23 from being short-circuited as occurred in the prior art shown in FIG. 15 of *Asano*, because of the presence of the hole 27, thus the magnetic flux flows to a stator 1, and contributes to generate torque. (See *Asano*: column 3, lines 64-66;

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and column 4, lines 8-15.) Clearly, *Asano* discloses a mere hole 27 and does not disclose or suggest a plurality of projections configured to fix positional location of said permanent magnets, the plurality of projections configured to project into said permanent magnet embedding holes within said core of said rotor, as recited by Claim 1. Accordingly, independent Claim 1 patentably distinguishes the present invention over the cited art, and Applicants respectfully request withdrawal of the rejection of Claim 1.

Dependent Claims 2-11 are also allowable at least for the reasons above regarding independent Claim 1 and by virtue of their dependency upon independent Claim 1. Accordingly, Applicants respectfully request withdrawal of the rejection of dependent Claims 2-11 under 35 U.S.C. § 102(b).

II. Conclusion

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims. The preceding arguments are based only on the arguments in the Office Action, and therefore do not address patentable aspects of the invention that were not addressed by the Examiner in the Office Action. The claims may include other elements that are not shown, taught, or suggested by the cited art. Accordingly, the preceding argument in favor of patentability is advanced without prejudice to other bases of patentability.

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Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: December 13, 2002

By: _____

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